Patent claims

1. A chewing gum characterized in that it is coated by at least one layer, this layer comprising slightly water-soluble calcium salt and/or composites thereof.

2. The chewing gum as claimed in claim 1, characterized in that the calcium salt is selected from fluoroapatite, carbonate-containing nonstoichiometric apatite, hydroxyapatite and fluorine-doped hydroxyapatite.

3. The chewing gum as claimed in claim 1 or 2, characterized in that the slightly water-soluble calcium salt has a particle size less than 1000 nm.

4. The chewing gum as claimed in claim 3, characterized in that the slightly water-soluble calcium salt has a particle size of 5 to 300 nm.

5. The chewing gum as claimed in one of the preceding claims, characterized in that the slightly water-soluble calcium salt is present in the form of rod-shaped crystals.

6. The chewing gum as claimed in one of the preceding claims, characterized in that the coating layer comprises 0.001 to 5% by weight, in particular 0.01 to 2% by weight, calcium salt and/or composites thereof.

7. The chewing gum as claimed in one of the preceding claims, characterized in that the coating layer comprises a composite of calcium salt and protein component.

8. The chewing gum as claimed in claim 7, characterized in that the protein component is selected from gelatin, caseine or hydrolyzates thereof, in particular gelatin.

9. The chewing gum as claimed in one of the preceding claims, characterized in that the calcium salt and/or composites thereof are coated by one or more surface-modification agents.

10. The chewing gum as claimed in one of the preceding claims, characterized in that the at least coating layer is a dragee-coated layer.

11. The chewing gum as claimed in one of claims 1 to 10, the chewing gum being sugar-containing.

12. The chewing gum as claimed in claim 11, the chewing gum and/or the coating layer comprising, as sweetener, sucrose, invert liquid sugar, invert sugar syrup, glucose, glucose syrup, polydextrose, tagatose, trehalose, trehalulose, maltose, lactose, fructose, leucrose, palatinose, condensed palatinose, hydrogenated condensed palatinose, or a mixture thereof.

13. The chewing gum as claimed in claim 11 or 12, characterized in that the chewing gum and/or the coating layer comprising, as additional sweetener, fructooligosaccharides, lactitol, sorbitol, xylitol, mannitol, maltitol, erythritol, 6-O-α-D-glucopyranosyl-D-sorbitol (1,6-GPS), 1-O-α-D-glucopyranosyl-D-sorbitol (1,1-GPS), 1-O-α-D-glucopyranosyl-D-mannitol (1,1-GPM) or a mixture thereof. .

14. The chewing gum as claimed in one of claims 1 to 10, characterized in that the chewing gum being sugar-free.

15. The chewing gum as claimed in claim 14, characterized in that the chewing gum and the coating layer comprising, as sweetener, fructooligosaccharides, lactitol, sorbitol, xylitol, mannitol, maltitol, erythritol, 6-O-α-D-glucopyranosyl-D-sorbitol (1,6-GPS), 1-O-α-D-glucopyranosyl-D-sorbitol (1,1-GPS), 1-O-α-D-glucopyranosyl-D-mannitol (1,1-GPM) or a mixture thereof.

16. The chewing gum as claimed in claim 13 or 15, characterized in that the mixtures being selected from the group consisting of an equimolar or virtually equimolar mixture of 1,6-GPS and 1,1-GPM (isomalt), a mixture of 1,6-GPS, 1,1-GPS and 1,1-GPM, a 1,6-GPS-enriched mixture of 1,6-GPS and 1,1-GPM having a 1,6-GPS content of 57% by weight to 99% by weight and a 1,1-GPM content of 43% by weight to 1% by weight, a 1,1-GPM-enriched mixture of 1,6-GPS and 1,1-GPM having a 1,6-GPS content of 1% by weight to 43% by weight and a 1,1-GPM content of 57% by weight to 99% by weight, and a syrup consisting of a mixture of hydrogenated starch hydrolyzate syrup and isomalt syrup or isomalt powder, the dry matter of the syrup consisting of 7-52% (weight/weight) 1,6-GPS, 24.5-52% (weight/weight) 1,1-GPM, 0-52% (weight/weight) 1,1-GPS, 0-13% (weight/weight) sorbitol, 2.8-13.8% (weight/weight) maltitol, 1.5-4.2% (weight/weight) maltotriitol and 3.0-13.5% (weight/weight) higher polyols.

17. The chewing gum as claimed in one of the preceding claims, characterized in that the chewing gum and/or the coating layer additionally comprising one or more intense sweeteners.

18. The chewing gum as claimed in claim 17, characterized in that the intense sweetener being cyclamate, saccharin, aspartame, glycyrrhizin, neohesperidin dihydrochalcone, stevioside, thaumatin, monellin, acesulfame, alitame, sucralose, or a mixture thereof.

19. The chewing gum as claimed in one of claims 10 to 18, characterized in that at least 2 to 100 dragee-coated layers are present.

20. The chewing gum as claimed in claim 19, characterized in that the individual layers have the same sweetener(s).

21. The chewing gum as claimed in claim 19, characterized in that the individual layers comprise different sweeteners.

22. The chewing gum as claimed in one of claims 19 to 22, characterized in that the individual layers comprise the same calcium salt and/or the same composites thereof.

23. The chewing gum as claimed in one of claims 19 to 22, characterized in that the individual layers comprise different calcium salts and/or different composites thereof.

24. The chewing gum as claimed in one of the preceding claims, characterized in that it additionally comprises fluoride salts.

25. The chewing gum as claimed in one of the preceding claims, characterized in that it comprises flavorings, fillers and/or further aids.

26. A method for producing a chewing gum as claimed in one of claims 1 to 25, which comprises producing a chewing gum core and coating the chewing gum core with at least one layer which comprises a slightly water-soluble calcium salt and/or a composite thereof.

27. The method as claimed in claim 26, characterized in that the chewing gum core being coated, by means of at least one hard dragee-coating step, with the layer comprising the calcium salt and/or composite thereof.

28. The method as claimed in claim 27, characterized in that the hard dragee-coating step comprising applying a solution or suspension which comprises at least one sweetener and the calcium salt and/or a composite thereof and drying the applied solution or suspension.

29. The method as claimed in claim 26, characterized in that the chewing gum core being coated, by means of at least one soft dragee-coating step, with the layer comprising the calcium salt and/or composite thereof.

30. The method as claimed in claim 29, characterized in that the soft dragee-coating step comprising applying a solution or suspension which comprises at least one sweetener and dusting the applied solution or suspension with a sweetener powder.

31. The method as claimed in claim 29 or 30, characterized in that the applied solution or suspension comprising the total amount of the calcium salt and/or composites thereof or a part thereof.

32. The method as claimed in claim 29 or 30, characterized in that the sweetener powder comprising the total amount of the calcium salt and/or composites thereof or a part thereof.

33. The method as claimed in one of claims 26 to 33, characterized in that the hard dragee-coating or soft dragee-coating steps being repeated several times.

34. The method as claimed in one of claims 26 to 33, characterized in that the calcium salt being selected from fluoroapatite, carbonate-containing nonstoichiometric apatite, hydroxyapatite and fluorine-doped hydroxyapatite.

35. The method as claimed in one of claims 26 to 34, characterized in that the calcium salt having a particle size less than 1000 nm, preferably 5 to 300 nm.

36. The method as claimed in one of claims 26 to 35, characterized in that the coating layer comprising 0.001 to 5% by weight, preferably 0.01 to 2% by weight, of calcium salt and/or a composite thereof.

37. The use of a chewing gum as claimed in one of claims 1 to 25 for dental hygiene and/or for mineralizing the tooth enamel and/or the dentine.